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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,773	07/03/2003	Alexandre Cervinka	BKP-006	7136

22832 7590 07/18/2005

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EXAMINER

ISSING, GREGORY C

ART UNIT	PAPER NUMBER
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3662

DATE MAILED: 07/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/613,773

Applicant(s)

CERVINKA ET AL.

Examiner

Gregory C. Issing

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/4/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

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1. Due to the in clarity of claims 18-34, it is not clear if a restriction requirement is proper or not. The set of claims featuring claims 18-34 set forth a "movement detector" and do not set forth a GPS receiver. Since it is unclear how the "movement detector" is used or enabled in the practice of the invention of the claimed subject matter, a rejection over art is questionable. Additionally, it is unclear if in fact claims 18-34 relate to the same invention as that of the remaining claims. Applicants are required, in response to the instant Office Action, to clarify the meaning of the "movement detector" in the claims and/or as well as to maintain a single claimed invention. On the basis of the applicants' response, therefore, a restriction requirement may be necessary if the applicants maintain a distinction between the embodiment of claims 18-34 and the remaining claims. For the basis of the instant Office Action, the "movement detector," since it has no meaning or purpose in the claimed subject matter, will be disregarded so that the remainder of the claims may be considered over art. Alternatively, any use of two positions or any distance increment provides information as to the detection of movement.

2. Claim 14 is objected to because of the following informalities: in claim 14 the language "is so mounted" is not clear. Appropriate correction is required.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 18-34 and 36-42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 18 sets forth a "movement detector" but neither claim 18 nor any of the dependent claims describe its use or function. Thus, the use of a movement detector is not clearly set forth in the claims so as to enable someone skilled in the art to use to the same.

Claim 36 is not clearly defined since the steps involve "creating a virtual fence around the cargo" and "obtaining dead reckoning data" when the cargo exits the virtual fence. However, if the virtual fence is created around the cargo, the cargo will never exit the virtual fence by definition.

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5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Becker (GB 2,025,185) in view of McCall et al (6,738,628) and further in view of any one of Garahi et al (2003/0091010), Mages (2003/0006931), Spratt (2002/0113735), or Abassi (EP 0 814,346), and lastly in view of Walters et al (6,850,844).

Becker et al disclose a vehicle location tracking system including a vehicle FZ having a radio receiver FG for receiving a beacon signal including location information as well a dead-reckoning navigation unit KN. The tracking unit stores the beacon location information and subsequently transmits the beacon data as well as the dead reckoning data to a central processor. The location information is only receivable when the vehicle is within radio range of the beacon. Each beacon corresponds to the claimed access point creating a virtual fence.

Becker et al differ from the claimed subject matter since the beacons are not specified as access points, in the sense of access points into a communication network. Though broadly speaking, the beacons represent access points since they provide access to location information.

McCall et al teach an asset tracking system including an asset 122 comprising a communication module for communicating with a central server 402 wherein the asset associates its position to within a range of position of a beacon from which it receives. The beacons may be attached to LAN access points distributed throughout the region of movement of the asset (3:42-44) and providing existing wireless communications (2: 47-49). Furthermore, a move detection system 400 is further contemplated to detect movement of the asset in the monitored area.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Becker et al by incorporating the beacons in access points of a wireless LAN or cellular

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network in view of the conventionality of such as shown by McCall et al so as to provide dual functions using the same device and thereby reduce the cost of the system.

Becker et al further differ from the claimed subject matter since the beacons are not disclosed as including GPS receivers. Each of Garahi et al, who teach mobile access points in a LAN including GPS receivers, Mages, who teaches the conventionality of using a GPS receiver to provide positional information to each of a plurality of Bluetooth transmitter stations 14 within a building such that when a wireless device 12 passes within the range of the transmitter's signal, the wireless device is capable of receiving the positional information, Spratt, who teaches the conventionality of location Bluetooth/IR beacons associated with GPS receivers for determining their own location [0059], and Abbasi, who teaches the conventionality of using a GPS receiver to download accurate positional information to each access point of an indoor/outdoor wireless communication network, teach the conventionality of associating GPS with a beacon used as a source of location information. Thus the use of GPS receivers as a source of accurate location information in the beacon or mobile access points is well-known in the art and its incorporation at each of the beacons in Becker would have been obvious to the skilled artisan to provide the accurate location information in view of the teachings of any one of Garahi et al, Mages, Spratt or Abassi. The wireless communication networks of the combined references clearly suggest the various communication modes including WLAN or cellular.

Walters et al disclose a portable tracking device with dead reckoning capabilities wherein the conventionality of accelerometers, gyroscopes, etc are well-known. It would have been obvious to the skilled artisan at the time the invention was made to include conventional dead-reckoning sensors in view of the teachings of Walters et al to provide the indications of movement absent GPS measurements.

7. Claims 1-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jellinek (4,107,689) in view of McCall et al (6,738,628) and further in view of any one of Garahi et al (2003/0091010), Mages (2003/0006931), Spratt (2002/0113735), or Abassi (EP 0 814,346) and lastly in view of Walters et al.

Jellinek (4,107,689) discloses a system for tracking location of a mobile unit including mobile unit 10, responsive to a remote beacon 12 transmitting a location code, dead-reckoning unit 26, for determining dead reckoning data from on-board distance and heading sensors 28/30, a communication

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transceiver 38 for communicating the location code and dead reckoning data to a central server station 40. Each of the remote beacons is associated with a virtual fence defining the range of the beacon's signal such that when the mobile unit is capable of receiving the signal, the position of the mobile unit is defined as the position of the beacon in the form of the location code.

Jellinek differs from the claimed subject matter since the remote units are not specified as access points, in the sense of access points into a communication network. Though broadly speaking, the remote units represent access points since they provide access to location information.

McCall et al teach an asset tracking system including an asset 122 comprising a communication module for communicating with a central server 402 wherein the asset associates its position to within a range of position of a beacon from which it receives. The beacons may be attached to LAN access points distributed throughout the region of movement of the asset (3:42-44) and providing existing wireless communications (2: 47-49). Furthermore, a move detection system 400 is further contemplated to detect movement of the asset in the monitored area.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Jellinek by incorporating the remote units in access points of a wireless LAN or cellular network in view of the conventionality of such as shown by McCall et al so as to provide dual functions using the same device and thereby reduce the cost of the system.

Jellinek further differs from the claimed subject matter since the remote beacon is not disclosed as comprising a GPS receiver for providing the location code information.

Each of Garahi et al, who teach mobile access points in a LAN including GPS receivers, Mages, who teaches the conventionality of using a GPS receiver to provide positional information to each of a plurality of Bluetooth transmitter stations 14 within a building such that when a wireless device 12 passes within the range of the transmitter's signal, the wireless device is capable of receiving the positional information, Spratt, who teaches the conventionality of location Bluetooth/IR beacons associated with GPS receivers for determining their own location [0059], and Abbasi, who teaches the conventionality of using a GPS receiver to download accurate positional information to each access point of an indoor/outdoor wireless communication network, teach the conventionality of associating GPS with a

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beacon used as a source of location information. Thus the use of GPS receivers as a source of accurate location information in the beacon or mobile access points is well-known in the art and its incorporation at each of the remote units of Jellinek would have been obvious to the skilled artisan to provide the accurate location information in view of the teachings of any one of Garahi et al, Mages, Spratt or Abassi. The wireless communication networks of the combined references clearly suggest the various communication modes including WLAN or cellular.

Walters et al disclose a portable tracking device with dead reckoning capabilities wherein the conventionality of accelerometers, gyroscopes, etc are well-known. It would have been obvious to the skilled artisan at the time the invention was made to include conventional dead-reckoning sensors in view of the teachings of Walters et al to provide the indications of movement absent GPS measurements.

8. Claims 1-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stobart (3,961,166) in view of McCall et al and further in view of any one of Garahi et al (2003/0091010), Mages (2003/0006931), Spratt (2002/0113735), or Abassi (EP 0 814,346) and lastly in view of Walters et al.

Stobart discloses a mobile unit locating apparatus including a tracking device in the form of communication module transceiver 30 configured to communicate with a central station 32 and a dead reckoning module comprising a heading sensor 2, wheel sensor 4, beacon receiver 6, and location processor 14. An update transmitter 34 is one of a plurality of transmitters located at predetermined positions within a monitored area and is configured to communicate with the tracking device to provide position signals characteristic of its individual position. The vehicle transceiver transmits location information to the central station wherein the location information is the result of the incremental movement of the vehicle as updated through the update receiver.

Stobart differs from the claimed subject matter since the update transmitters are not specified as access points, in the sense of access points into a communication network. Though broadly speaking, the update transmitters represent access points since they provide access to location information.

McCall et al teach an asset tracking system including an asset 122 comprising a communication module for communicating with a central server 402 wherein the asset associates its position to within a range of position of a beacon from which it receives. The beacons may be attached to LAN access points

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distributed throughout the region of movement of the asset (3:42-44) and providing existing wireless communications (2: 47-49). Furthermore, a move detection system 400 is further contemplated to detect movement of the asset in the monitored area.

Stobart further differs from the claimed subject matter since the update transmitter is not disclosed as comprising a GPS receiver.

Each of Garahi et al, who teach mobile access points in a LAN including GPS receivers, Mages, who teaches the conventionality of using a GPS receiver to provide positional information to each of a plurality of Bluetooth transmitter stations 14 within a building such that when a wireless device 12 passes within the range of the transmitter's signal, the wireless device is capable of receiving the positional information, Spratt, who teaches the conventionality of location Bluetooth/IR beacons associated with GPS receivers for determining their own location [0059], and Abbasi, who teaches the conventionality of using a GPS receiver to download accurate positional information to each access point of an indoor/outdoor wireless communication network, teach the conventionality of associating GPS with a beacon used as a source of location information. Thus the use of GPS receivers as a source of accurate location information in the beacon or mobile access points is well-known in the art and its incorporation at each of the remote update transmitters of Stobart would have been obvious to the skilled artisan to provide the accurate location information in view of the teachings of any one of Garahi et al, Mages, Spratt or Abbasi. The wireless communication networks of the combined references clearly suggest the various communication modes including WLAN or cellular.

Walters et al disclose a portable tracking device with dead reckoning capabilities wherein the conventionality of accelerometers, gyroscopes, etc are well-known. It would have been obvious to the skilled artisan at the time the invention was made to include conventional dead-reckoning sensors in view of the teachings of Walters et al to provide the indications of movement absent GPS measurements.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Chou (2002/0177476) teaches the conventionality of extending GPS indoors by the use of a "transporter" wherein an external GPS antenna communicates GPS position information to devices not



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capable of directly receiving GPS signals, for particular use when the unit is attached to a container on a ship, stored inside a warehouse or in any other enclosed structure.

Swope et al (6,801,159) disclose a portable navigation unit which switches between the methods of position determination on the basis of its relative position to a perimeter threshold. When the unit is within the perimeter threshold, i.e. a virtual fence, the position is derived from signals from GPS, whereas as the unit crosses over the perimeter and outside thereof, the PINS electronics determines the position, wherein the PINS includes dead-reckoning sensors in the form of an accelerometer and gyro/compass.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory C. Issing whose telephone number is (571)-272-6973. The examiner can normally be reached on Monday - Thursday 6:00 AM- 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on (571)-272-6979. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Gregory C. Issing  
Primary Examiner  
Art Unit 3662

gci